

the one morning. It called for four or five times and then no more, but my lad thought he saw it the same day. . . . It never stays long but I think previously I have heard it staying about for a couple of days."

Could it then be assumed that Pallid Cuckoos only stop in the northern agricultural areas on their way south? Or is it that the broadcasts appealing for observations were not extensively heard in these areas? This may be possible, but there are about four times as many records from places south of Perth as there are from places north of Perth, within the same radius. The difference is quite significant. The call of the Pallid Cuckoo is much more frequent in the South-west than in any other region. Is it because the bird itself is more frequent, or stays longer, or is it because the call is associated with "nesting" activities and these activities are most easily carried out in the wetter and richer South-west?

Only constant and patient observations in the drier districts and in the North-west and Kimberleys may provide some clue as to the migration of this fascinating bird. Observers in the South-west could perform a useful service to science by recording the call of the Pallid Cuckoo over a longer period, preferably throughout the season, so that the length of "residence" of the bird may be known.

NOTES ON THE ANT-LIONS OF THE SUB-FAMILY MYRMELEONTINÆ

By WALLACE H. MATHEWS, South Perth.

The genus *Acanthaclis* and its allies *Mestressa* and *Cosina*, in the Ant-lion sub-family of Myrmeleontinae, include ten species of large size. They are handsome grey and whitish insects with a very hairy body and a wing span of from 3½ to 7 inches. Some of the larger species of these insects come from the inland deserts of our continent.



Fig. 1. Larva of *Acanthaclisis fundata*, x 3.

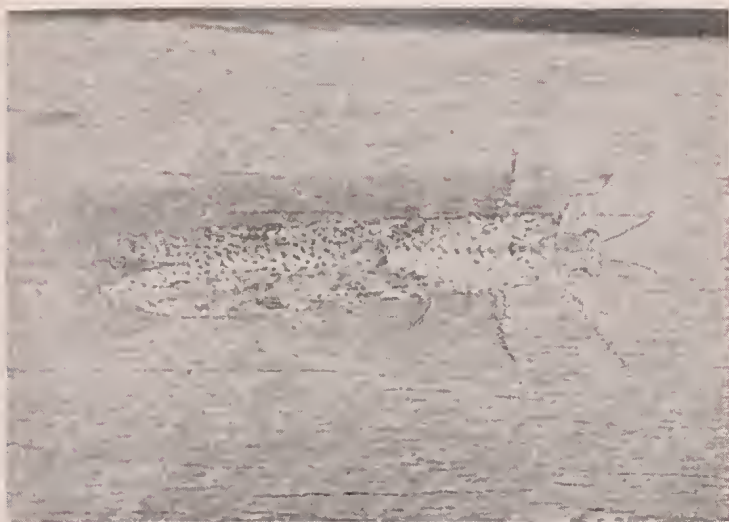


Fig. 2. Adult of *Acanthaclisis* sp. on jarrah picket, showing the protective markings

Their larvae are very large (25 x 9 mm.) and do not form pits but lurk under debris or loose soil and have the habit, during the night, of moving backwards just under the surface of the sand, with only eyes and jaws exposed. The many trails running over the surface of the ground, often seen on a windless morning and sometimes mistaken for lizard tracks, are made by these insects in their search for prey. They will live in the larval form up to three years and will then spin a cocoon of silk, the outer layers being cemented with sand grains. After pupation it might be 12 months before the imago will emerge.

The mature insect is about 45 mm. in length, some of the species being slightly larger. It is marked in grey, white and black, each of the species having a distinct body pattern. The antennae are short and clubbed and marked with alternate rings, light and dark. The colouration of the entire insect is such that, when at

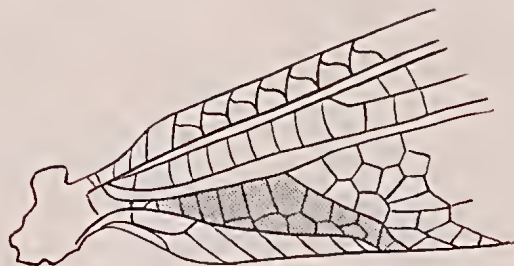


Fig. 3. Diagram illustrating the cubital area (shaded) of the forewing.

rest on a piece of weathered jarrah, such as a picket fence, or along a wire clothes line—both of which are favourite resting places—the protective markings so blend with their surroundings that the insects are very hard to discover. They rest in the chosen position all day and fly at dusk when they can be observed hawking for mosquitoes and other insects which are their food. If an insect is approached quietly and unhurriedly, while it is at rest, it can easily be coaxed to take up a position on a finger and can then be transferred to any desired object.

I have collected at least four species of *Acanthaclisis* in South Perth.

To identify particular species it is only necessary to observe the arrangement of the cells in the cubital area of the forewing. The arrangement of the cells in this area is always constant and peculiar to the species. The simplest arrangement I have found is in an undescribed species of *Acanthaclisis* which has 11 single cells in this area.

The arrangement of the cells in the cubital area in the other species of *Acanthaclisis* is as follows:—

A. subfasciata: 7 single, 2 double and 3 single cells.

A. fundata: 5 single, 5 double and 2 single cells.

A. subtendens: 5 single, 3 double, 2 triple, 2 double and 2 single cells.



Fig. 4. Wing venation of *Acanthaclisis* sp. (upper left); *A. subfasciata* (upper right); *A. fundata* (lower left); *A. subtendens* (lower right). —Photos W. H. Mathews